PDS STANDARDS OVERVIEW

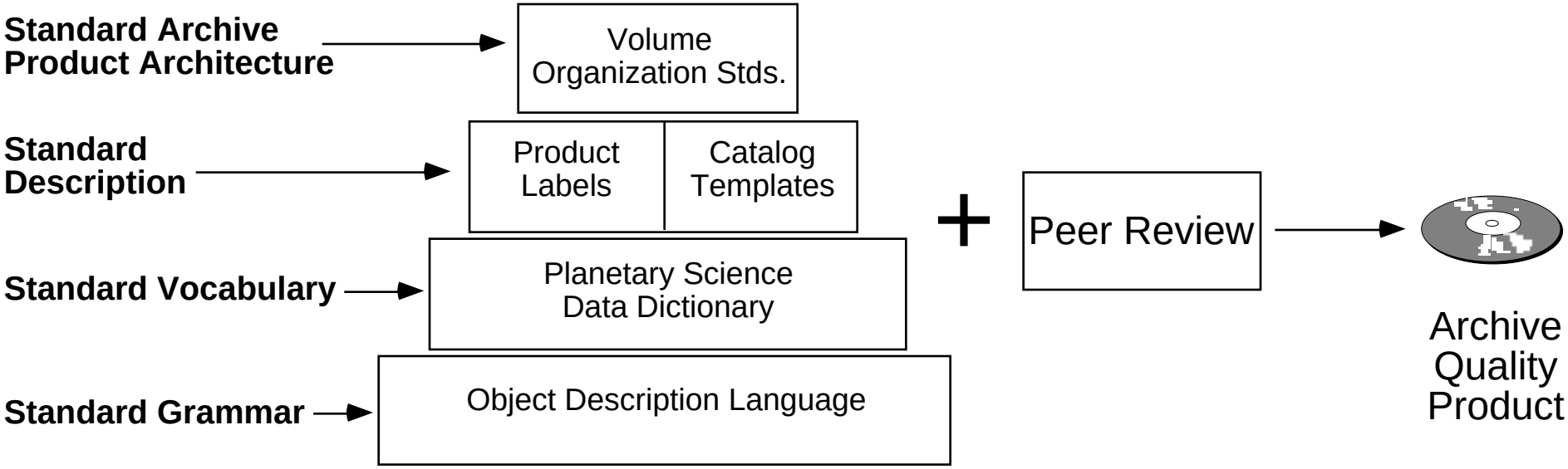
September 1995

Topics

- What are the PDS Standards?
- Why are they useful?
- What kinds of data are archived by PDS?
- What are the steps to archive?

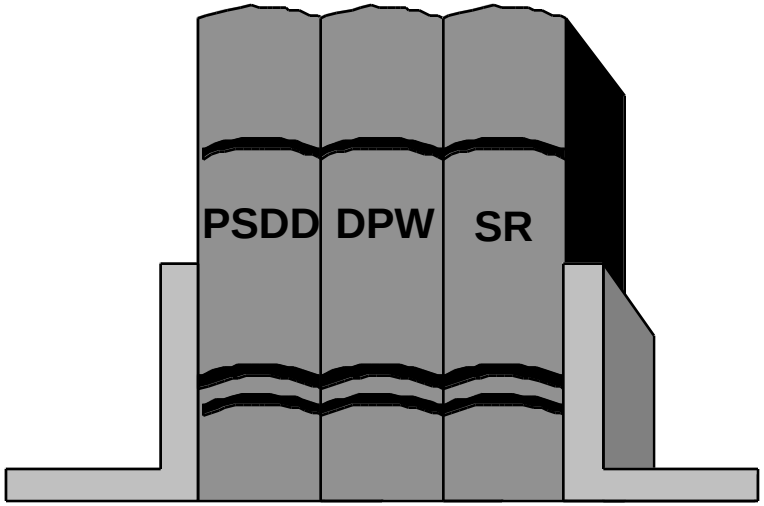
PDS Standards Overview

What are the PDS Standards?

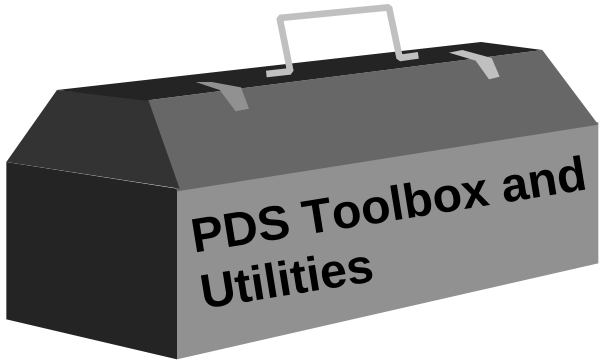


PDS Standards Overview

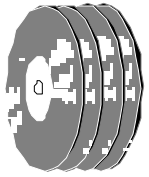
Standards Resources



Reference Documents



Software Aids



Sample Data Products

Archiving Expertise

Why are the PDS Standards Useful?

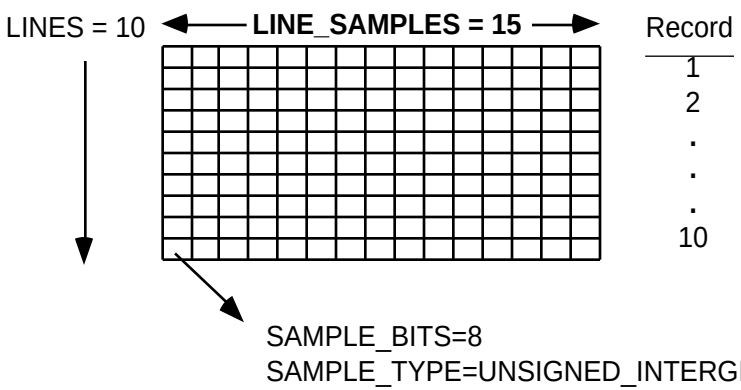
- **Meets end user needs**
  - Data packaged in a very useful form
  - Consistency between data sets promotes usefulness of the data
  - Peer review improves quality

- **Meets project archive goals**
  - Product Design experience saves resources
  - Best archiving done during project

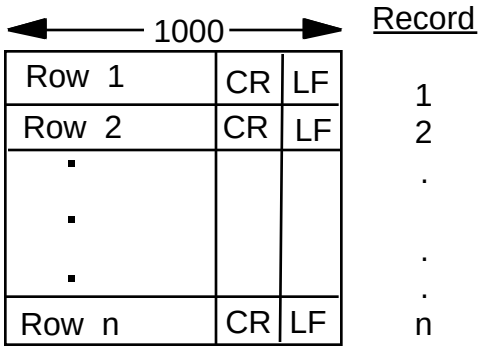
Data Packaged in a Very Useful Form

Simple Data Structures

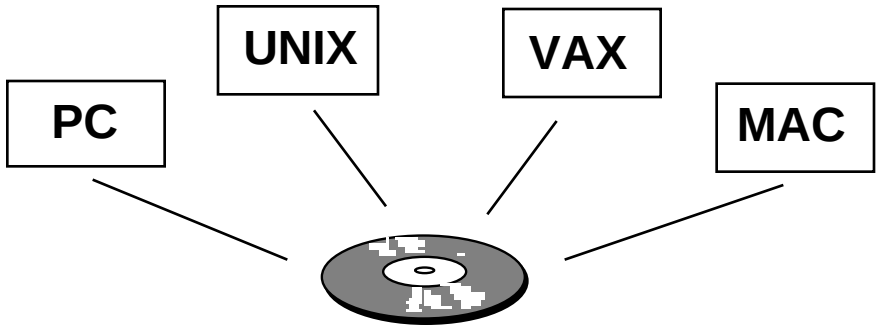
IMAGE



TABLE



Platform/Operating System Independent



PDS Standards Overview

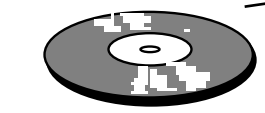
Data Packaged in a Very Useful Form

Metadata Both Human and Machine Readable

```
SPACECRAFT_NAME          = VOYAGER
FILTER_NAME              = GREEN
LINES                    = 960
SAMPLES                  = 956
etc...
```

Portion of a PDS Label

All necessary information supplied with the data:



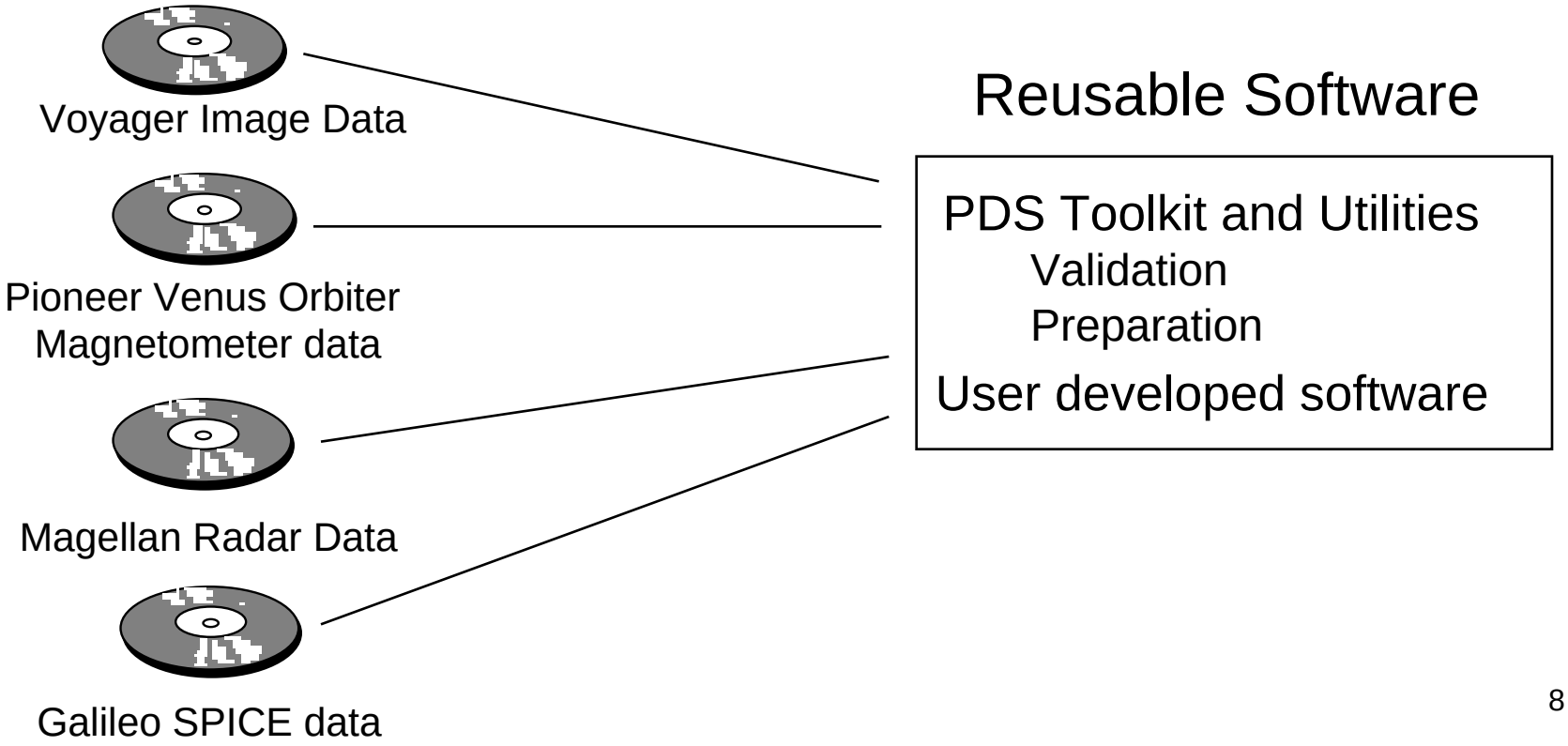
PDS CD-ROM

- Data Products
- Geometry and Calibration Data
- Documentation
- Software
- Catalog Information

Consistency Between Data Sets

Consistency in the contents and organization of planetary data sets facilitates use of the data, including comparisons across missions or across disciplines. Consistency also promotes software reuse.

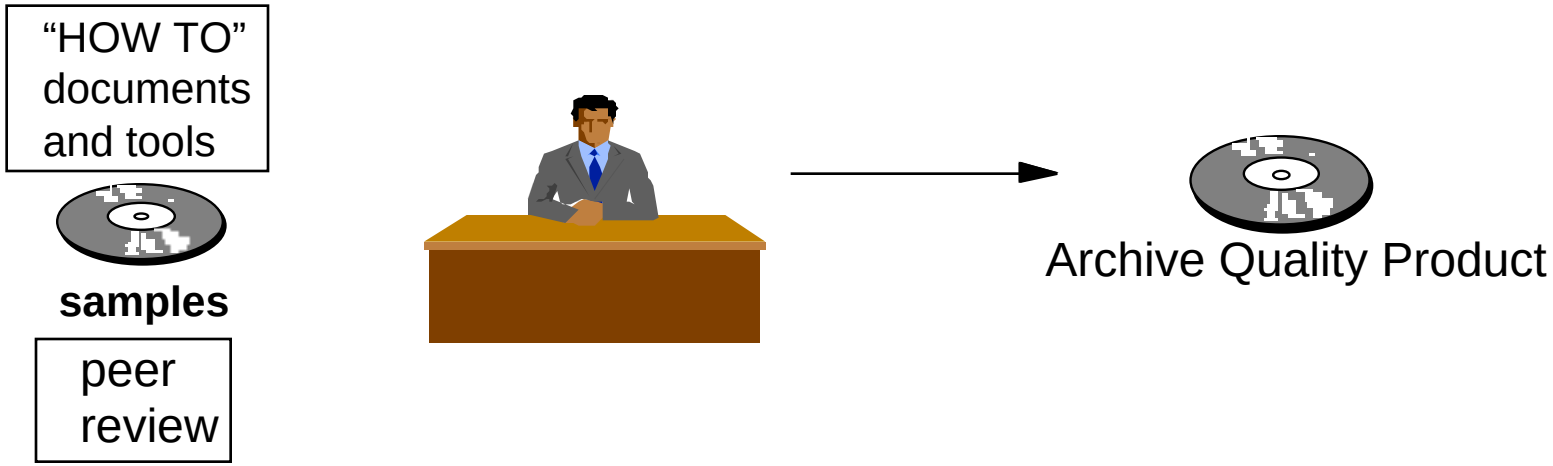
Example products:



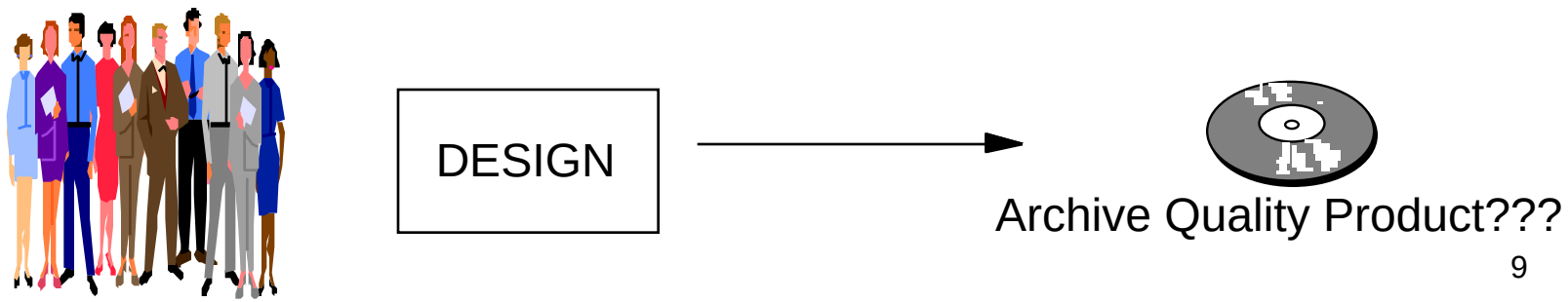
PDS Standards Overview

Meets Project Archive Goals

*** PDS standard recipes can be followed. No need to redesign**



*** OR, project can design archive from scratch**



PDS Standards Overview

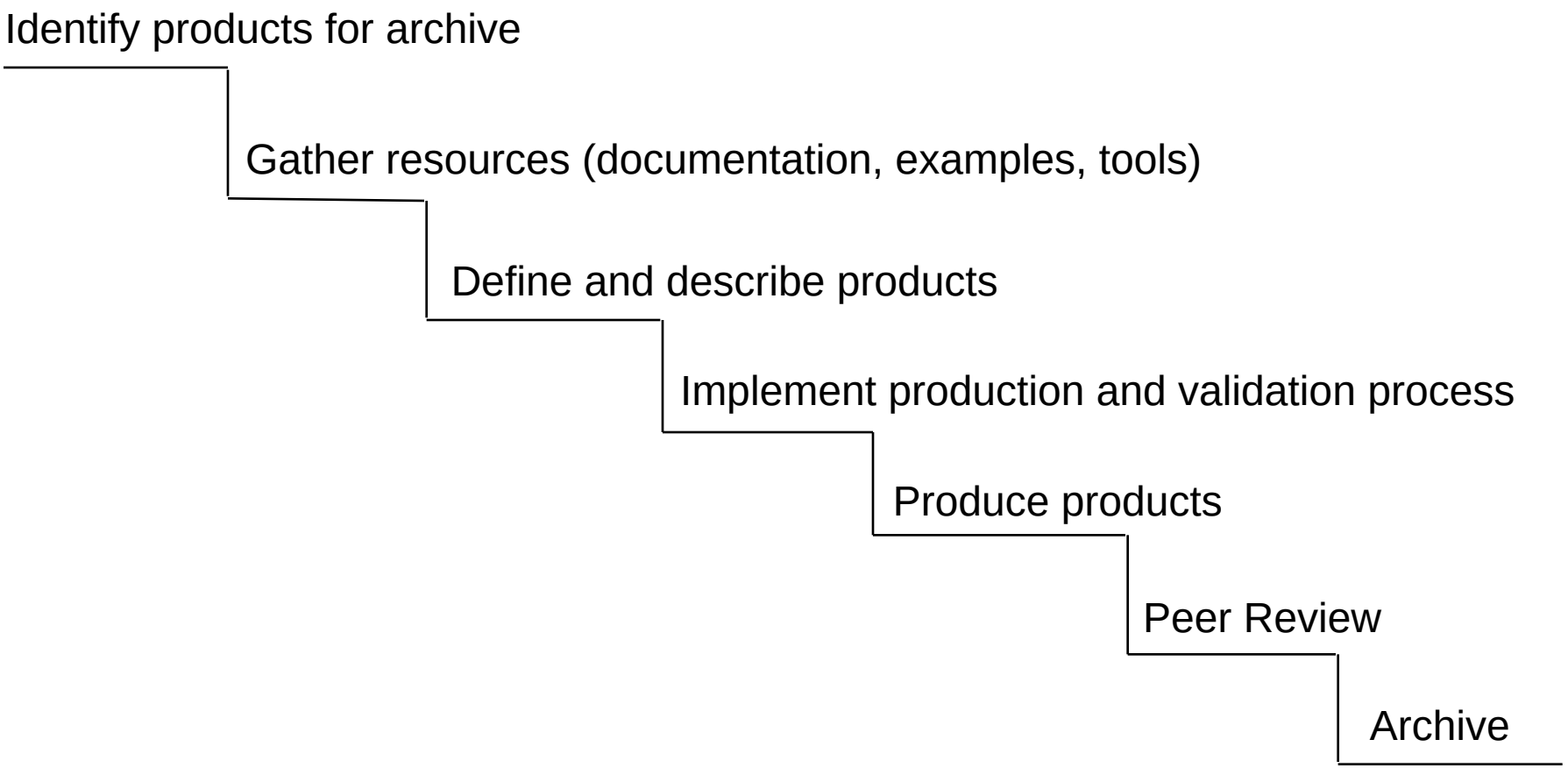
What kinds of data are archived by PDS?

Partial List:

ANEMOMETER
CAMERA (Framing Camera, Vidicon Camera, Wide Field Camera)
CCD
CHARGED PARTICLE ANALYZER
DETECTOR ARRAY
EYE (visual observations)
HYGROMETER
METEOROLOGY instruments
INFRARED IMAGING DEVICE
INFRARED INTERFEROMETER
MAGNETOMETER
PHOTOMETER (infrared)
PLASMA WAVE SPECTROMETER
POLARIMETER
RADAR
RADIO SCIENCE instruments
RADIOMETER
SPECTROMETER (imaging and infrared)
SYNTHESIZED ARRAY
TELESCOPE (optical)
THERMISTOR
TOTAL POWER DETECTOR

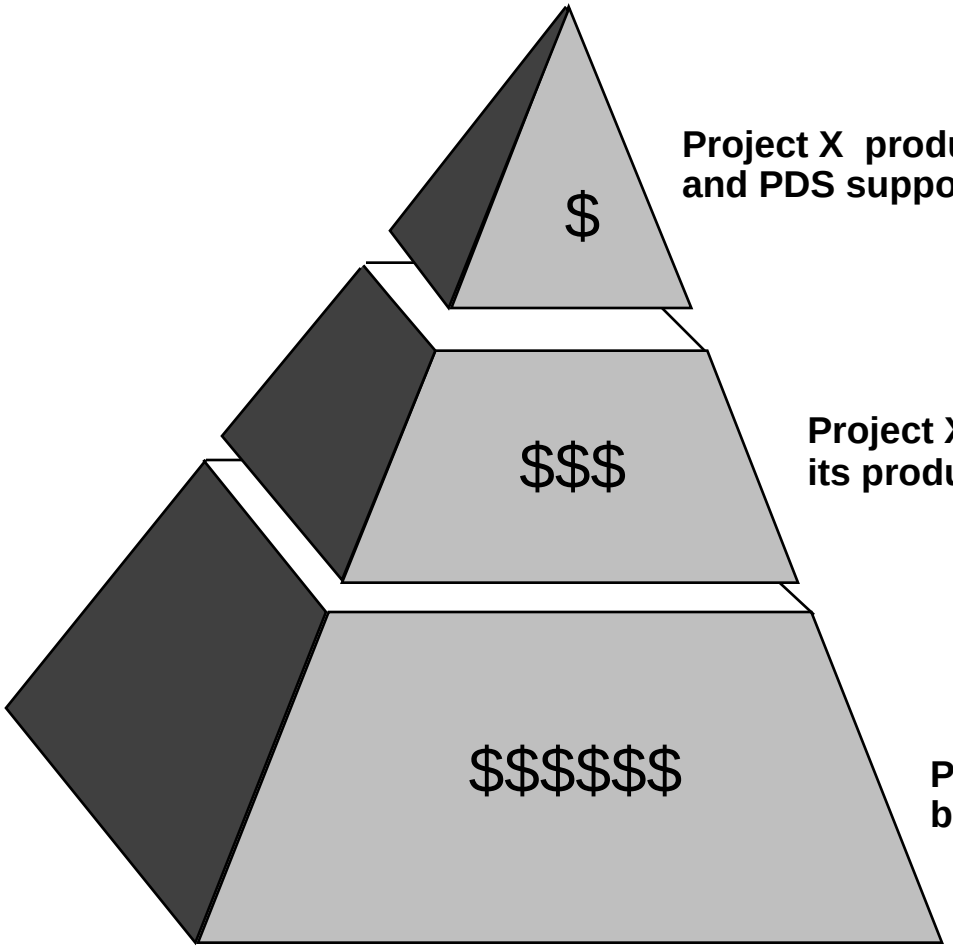
PDS Standards Overview

What are the Steps to Archive?



PDS Standards Overview

Archive Cost Pyramid



Project X produces PDS-standard products and PDS supports project during planning

Project X still active, but PDS must restore its products to make useable by scientists

Project X over; PDS must restore products but no access to project knowledge